

### ***2.1.7 Vine Street (70<sup>th</sup> Street to 14<sup>th</sup> Street; 4.0 miles)***

Tables 13a and 13b summarize the results of the travel time studies conducted along Vine Street. The limits of this corridor were defined by the intersection at 70<sup>th</sup> Street on the east and 14<sup>th</sup> Street on the west. This corridor is characterized by educational institutions (UNL) on the far west, to commercial uses at the intersections of 27<sup>th</sup> Street, 45<sup>th</sup> Street, 48<sup>th</sup> Street and 70<sup>th</sup> Street, and residential uses in between. Vine Street has a posted speed limit of 25 mph between 14<sup>th</sup> and 17<sup>th</sup> Streets and 35 mph between 17<sup>th</sup> and 70<sup>th</sup> Streets.

From the results of the “after” studies, average speeds along Vine Street exceed 20 mph. From a general standpoint, both increases and decreases between the “before” and “after” average speeds were observed. Increases in average speed of 2.5 mph and 3.6 mph were observed in the AM Peak, eastbound direction and Midday time period, westbound direction, respectively. Decreases in average speed up to 2.7 mph were experienced. Individual links that experienced average speeds less than 18 mph during the “after” studies are summarized in Table 14.

As summarized in Table 14, Vine Street experiences low average speeds within the boundaries of the University of Nebraska City campus (14<sup>th</sup> – 17<sup>th</sup> Streets). Two probable reasons for these low average speeds are the posted speed limit of 25 mph and very high pedestrian volumes.

Low average speeds were also observed between 66<sup>th</sup> Street and Cotner Boulevard during the AM and PM Peak time periods. One probable reason for low speeds along this segment results from the mode the traffic signal controller at the intersection of Cotner Boulevard/Vine Street is programmed to operate. Due to high volumes of both pedestrian and vehicular traffic at this intersection, unique signal phasing was implemented at the completion of construction to accommodate this mix of traffic volumes. This unique signal phasing resulted in the traffic signal controller being set to operate in “free” operation. “Free” operation refers to an intersection that is uncoordinated, or is not intended to provide vehicular progression between signalized intersections along a given roadway.

Most other links that were found to have low average speeds are those defined by major signalized intersections at their downstream ends.

From the detailed link statistics, as provided in Appendix A, additional conclusions can be drawn for operations along the Vine Street corridor. In the westbound direction during the AM Peak time period, the link between 27<sup>th</sup> Street and 17<sup>th</sup> Street experienced an average of 1.2 stops. This indicates that on at least one occasion, the study vehicle waited through two signal cycles at the intersection of 17<sup>th</sup> Street/Vine Street before continuing westbound. Operations similar to this occur during the Midday time period in the eastbound direction between the intersections of 14<sup>th</sup> Street and 16<sup>th</sup> Street, where an average of 1.1 stops was experienced. These multiple stops are caused by pedestrians, either at the intersection of 16<sup>th</sup>/Vine Streets or at the mid-block crossing between 14<sup>th</sup>

and 16<sup>th</sup> Streets. During the PM Peak, an average of 1.2 stops in the westbound direction were experienced at the intersection of 17<sup>th</sup>/Vine Streets.